

Date: Mon, 13 Jun 94 04:30:18 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V94 #182  
To: Ham-Ant

Ham-Ant Digest                      Mon, 13 Jun 94                      Volume 94 : Issue 182

Today's Topics:

        'Bending' beverage  
        2 antennas into receiver?  
        80 Meter Receiving Loop  
    <<Best dual band verticals?>> (2 msgs)  
        beverage???  
    Curing RF Voltage on Rig case in Mobi (2 msgs)  
        Dielectric antennas?  
        help w/antenna/amp problem  
        Mobile Antennas  
        moment method  
        need MFJ-941D tuner manual  
    seek old CDR rotor (or replacement)  
        Wind Loading

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 12 Jun 1994 14:14:47 GMT  
From: ihnp4.ucsd.edu!swrinde!hopper.acm.org!ACM.ORG!SMITHSON@network.ucsd.edu  
Subject: 'Bending' beverage  
To: ham-ant@ucsd.edu

I just put up a \_lot\_ of fence on my 4 acre lot (we have horses). This  
fence would make an excellent support for a beverage, but I would have to  
make some turns to get the kind of length I'd need. does anyone know if  
there is a problem in beverages not being straight?

Thanks!

-Brian n8wrl

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Date: Sun, 12 Jun 94 10:00:00 -0800  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!iat.holonet.net!megasys!  
tim.marek@network.ucsd.edu  
Subject: 2 antennas into receiver?  
To: ham-ant@ucsd.edu

It wont work. I sugest you use a coak switch to switch between the two.  
The radio is expecting a 50 Ohm load. The BNC "TEE" is not a Power  
divider with 1/4 wavelength lengths between feeds, Its just a adaptor,  
NO MORE. If you want broadband cvrg with one feedline I suggest a  
broadband Discone or Log Periodic yagi, Both available commercially but  
why dont you build them and save 90% of your money for something else.  
Besides Homebrewing is fun and you will leard a thing or two about  
antennas. Have Fun! See Ya...l. Tim, NC7K...sk

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Date: 13 JUN 94 01:17:31 AST  
From: newsflash.concordia.ca!nstn.ns.ca!news.unb.ca!UNBVM1.CSD.UNB.CA@uunet.uu.net  
Subject: 80 Meter Receiving Loop  
To: ham-ant@ucsd.edu

I have been trying to build the Maxi-Loop 80 meter Receiving antenna  
described in 73 Amateur Radio of Dec. 1993, pp. 42-48 without much  
success.

It is basically a box, 18 inch square, with 6 turns of wire going,  
through a 7th turn to a variable capacitor rated 75 pF, for 80 meter  
(and 200 pF for 160 m or so). What I built, with a VC that goes up  
to 138 pF, does not work better than a dummy load no matter what I  
do with the VC. On 20 meters it seems to tune, especially as I get  
to the upper limit of 138 pF. Strangely enough, reception was noisy.

I tried another VC that goes from 9 to 305 pF but it is useless.

Can anyone offer some help on this problem?

Luis Nadeau VE9LN

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Date: Sun, 12 Jun 1994 14:19:34 GMT

From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!math.ohio-state.edu!darwin.sura.net!  
news.Vanderbilt.Edu!news@network.ucsd.edu  
Subject: <<Best dual band verticals?>>  
To: ham-ant@ucsd.edu

In a former article we saw...

---begin former article---  
From: penneys@brahms.udel.edu (Robert Penneys)  
Subject: <<Best dual band verticals?>>  
Date: 11 Jun 1994 18:38:59 -0400

We are having some debate in the club about the best base station verticals  
for 2m/440.

If you have a vote to cast one way or the other in the following categories:

\$50-100      100-150      150-200      200-250      250 and up

we would love to hear it.

Tnx Bob

and PFEIFFEM@ctrvx1.Vanderbilt.Edu (PFEIFFEM\_1) comments...

If you are going strictly by cost than by performance then you're mistaken!  
Better try to poll people based on performance first.

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Date: Sun, 12 Jun 1994 21:31:19 GMT  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!usenet.ins.cwru.edu!ncoast!  
fmsystm.telemex.com!fmsys!macy@network.ucsd.edu  
Subject: <<Best dual band verticals?>>  
To: ham-ant@ucsd.edu

In article <2tdee3\$lgo@brahms.udel.edu> penneys@brahms.udel.edu (Robert Penneys)  
writes:

>

>We are having some debate in the club about the best base station verticals  
>for 2m/440.

We've used several types for the couple local clubs I'm involved with.  
What always seems to work best is the Diamond X-500 or X-500RH.  
Yes, they wave around a bit in the wind, but they work very well.  
(We've tried others, but keep coming back to the Diamond X-500)

Diamonds will not withstand direct lightning strikes. Some commercial  
antennas seem to do better with lightning, but offer lesser performance.

Since we can buy a X-500RH (heavy duty version) for around \$220, we've  
decided to bear with replacing them when they are destroyed by lightning.  
Around here, thats about every two years for an tower mounted unit.

Note: for some reason we have not tried the similiar Comet. I hear  
other clubs have, and like it. Also, its a good idea to seal up these  
fiberglass antennas with silicone seal when you assemble them. Every  
once in a while, a leak around a joint will develop, probably from  
the flexing in the wind.

Regards,

--

Macy M. Hallock, Jr. N80BG +1.216.723.3030 macy@telemax.com macy@fms.com  
Telemax, Inc. - F M Systems, Inc. 152 Highland Drive Medina, OH 44256 USA

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Date: Sun, 12 Jun 1994 15:46:00 GMT  
From: newsflash.concordia.ca!vax2.concordia.ca!hirschj@uunet.uu.net  
Subject: beverage???  
To: ham-ant@ucsd.edu

For the less educated of us, what is a beverage (no jokes  
about root beer please).

Keywords: beverage

Message-ID: <12JUN199410465787@vax2.concordia.ca>

Organization: Concordia University

News-Software: VAX/VMS VNEWS 1.41

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Date: 13 Jun 1994 04:17:11 GMT  
From: ihnp4.ucsd.edu!swrinde!gatech!concert!inxs.concert.net!taco.cc.ncsu.edu!  
csemail.cropsci.ncsu.edu!samodena@network.ucsd.edu  
Subject: Curing RF Voltage on Rig case in Mobi  
To: ham-ant@ucsd.edu

In article <2te4d4\$g4p@chnews.intel.com> cmoore@ilx018.intel.com (Cecil A. Moore -FT-~) writes:

>

>Hi Steve, Can you explain my problem. I have my bumper mounted mobile  
>antenna grounded outside at the bumper with a choke balun on the  
>transmission line. That ground was the only one in the system. Inside  
>the cab, I have a separate battery and transceiver. I had RF in the cab  
>something fierce. A two-foot ground wire from my transceiver to the  
>S10 chassis lowered the RF in the cab to a negligible value. Do those  
>results agree with what you said above? Where was my RF in the cab  
>coming from and where did it go?

>

>73, KG7BK, 00TC, CecilMoore@delphi.com

Cecil-- I'm not sure you are giving me enough info to imagine your setup.

Here's a couple of points:

I don't discourage people from grounding their rig to the interior/frame of the car...that may be wise \*just\* for the rare case of live AC somehow coming in contact with the whip... AND YOU being the connection to the car via the transmission line. ;^)

I don't discourage people from using chokes on their power cords or mike leads or on their transmission lines. :^)

I personally prefer--and do, run my mobile rig from a stand-alone battery that is never connected to the car's charging system...

When I analyse a mobile setup, I start from this logic:

Modern radios can convert battery energy into rf energy \*without\* the transmission line/antenna/ground system being involved in the frequency determination/energy-storage aspects... (in contrast to arc & spark transmitters...see Communications Quarterly, Spring 1994, "Arcs and Sparks: Part 1" article). A good design modern xmtr is a closed system (rf-wise) except for the coax connector.

Rf can be piped to an antenna via an entirely closed transmission line--such as 95% coax with wrap.

Supposing that the antenna is mounted on a steel shell vehicle--that vehicle having no openings greater than a very small fraction of the wavelength being transmitted, then there is no expectation that rf emitted external to the vehicle should appear

\*within\* the vehicle....provided that the coax is routed correctly and the braid is properly connected to the exterior of the vehicle in such a way as to assure a connection to a large \*exterior\* surface area.

So it follows, that rf circulating on the interior of a steel shell vehicle \*either\* originates inside the vehicle via leaks from the xmtr or transmission line...\*or\* originates externally and is conducted back into the interior.

Notice that I've set this up as a bifurcation type logic...I used to repair cars for a living: a car that won't start has a problem with (a) spark or (b) fuel...do the appropriate test to decide which...then determine the next bifurcated logic step to test..... :^)

Vince gave enough of a description of his roof mounted antenna system that I'd guessed that the most \*likely\* solution would begin with affixing the coax braid to the exterior of the car.

Now Cecil, I think you have an S-10 pickup truck...but I don't know what antenna you have, how the bumper mount is feed...especially the routing of the coax, whether you have made any attempt to make sure the bumper is actually connected to the truck bed via a good \*rf\* conductor, what the nature/specs of your "choke" balun is, or even what band we are talking about....never mind the contrast of 2 M. to 80 M....10 M requires more precautions than 80 M. :^)

So post a good discription of your system...I'm game to think about it...

Someone reading this might think that the problem has already been solved. But based on the logic I layed out above, Cecil has temporarily routed the rf problem elsewhere in the cab....it's still there and \*that\* is the problem: how is the rf getting into the cab...is it leaking from the transmitter, from the coax (yes, folks, RF can easily leak from improperly constructed or damaged coax), or is it coming back from the exterior by some direct or \*circuitous\* route?

Remember, rf in the cab means \*less\* rf radiating! At home and mobile, more people are running QRP than realize it! :^)

73/Steve/AB4EL nmodena@unity.ncsu.edu.

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Date: 13 Jun 1994 04:59:09 GMT  
From: ihnp4.ucsd.edu!swrinda!gatech!asuvax!chnews!cmooore@network.ucsd.edu  
Subject: Curing RF Voltage on Rig case in Mobi  
To: ham-ant@ucsd.edu

S. A. Modena (samodena@csemail.cropsci.ncsu.edu) wrote:

: >Hi Steve, Can you explain my problem. I have my bumper mounted mobile  
: >antenna grounded outside at the bumper with a choke balun on the  
: >transmission line. That ground was the only one in the system. Inside  
: >the cab, I have a separate battery and transceiver. I had RF in the cab  
: >something fierce. A two-foot ground wire from my transceiver to the  
: >S10 chassis lowered the RF in the cab to a negligible value. Do those  
: >results agree with what you said above? Where was my RF in the cab  
: >coming from and where did it go?

: So post a good discription of your system...I'm game to think about it...  
: 73/Steve/AB4EL nmodena@unity.ncsu.edu.

Thanks Steve, the antenna connector mount fits into the trailer hitch hole. The bumper is tied to the frame through the double braid from an ethernet cable. Freq is 10m and I have a dozen cores slipped over the RG-8x for an RF choke. Inside, battery and transceiver were isolated from any metal. There was only one frame ground at the base of the antenna. No tail gate on the S10. If I touched the transceiver case and the S10 frame while transmitting, I got bit. A two-foot piece of braid from the transceiver chassis to the S10 chassis solved the problem. The SWR is 1/1 and the coax is six feet long. Before I installed the ground strap on the transceiver, I could change the SWR reading by touching the transceiver chassis. Now the SWR reading is rock solid. Antenna is 98" whip.

Before the inside ground strap was added, a powered speaker connected to my 2m rig completely isolated from the HF rig would turn on when I keyed up on 10m. I've solved the problem but I don't know why. What do you think?

73, KG7BK, 00TC, CecilMoore@delphi.com

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Date: 13 Jun 1994 05:30:40 GMT  
From: ihnp4.ucsd.edu!agate!spool.mu.edu!bloom-beacon.mit.edu!noc.near.net!  
chaos.dac.neu.edu!chaos.dac!dean@network.ucsd.edu  
Subject: Dielectric antennas?  
To: ham-ant@ucsd.edu

Hi:

I would like to learn about Dielectric Antennas. Could anyone recommend some reading materials, books, articles, etc.?

-Dean

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Date: Sun, 12 Jun 1994 14:26:28 GMT  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!darwin.sura.net!  
news.Vanderbilt.Edu!news@network.ucsd.edu  
Subject: help w/antenna/amp problem  
To: ham-ant@ucsd.edu

In a former article we saw...

---begin former article---  
From: koechig@garnet.msen.com (B Koechig)  
Subject: help w/antenna/amp problem  
Date: 11 Jun 1994 23:50:28 GMT

Here is the problem:

With my homebrew 2 meter j-pole and yaesu ft-23r I get an swr reading of under 1.5:1 at both power levels. With the rf concepts amp I just bought, if I use low power coming from the radio I get about 8 watts out with still a good swr. However if I use the 5 watts out from the radio my swr rockets to almost 3:1! I would think that both power levels would reflect the same swr if everything was ok. Does anyone have any insight?

Thanks,  
Bill Koechig N8PKA  
Pontiac, MI

---end former article---

and PFEIFFEM@ctrvx1.Vanderbilt.Edu (PFEIFFEM\_1) comments...  
Bill,

My Nye Viking SWR meter requires about 10w to show true (?) SWR. Sounds like yours too requires a minimum power to read correctly.

Good DX,  
K5WIM

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Date: Mon, 13 Jun 1994 04:29:27 GMT  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!europa.eng.gtefsd.com!  
newsxfer.itd.umich.edu!caen!saimiri.primate.wisc.edu!sal.wisc.edu!zimmer!  
news@network.ucsd.edu  
Subject: Mobile Antennas  
To: ham-ant@ucsd.edu



Not long ago I heard in this group about a great antenna made by a small company in Texas (Austin?) that sells direct (I think the 2m single band antenna was \$19.95) to the public. Can anybody help me by posting (or e-mailing) the name and phone # of the company. I'm sorry I can't give more information. I only remember what is above.  
Thanks.

73,

Rafael  
(waiting for ticket)

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Date: Sun, 12 Jun 94 10:02:00 -0800  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!iat.holonet.net!megasys!  
tim.marek@network.ucsd.edu  
Subject: moment method  
To: ham-ant@ucsd.edu

The ARRL Antenna Book or the ARRL Handbook would be good places to start. Have Fun... Tim - NC7K...sk

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Date: 13 Jun 1994 07:21:56 GMT  
From: ihnp4.ucsd.edu!usc!nic-nac.CSU.net!vfoao0ix@network.ucsd.edu  
Subject: need MFJ-941D tuner manual  
To: ham-ant@ucsd.edu

Sy Jerry (SYJERRY@duq3.cc.duq.edu) wrote:

> I got a used MFJ-941D versa tuner II and do not have the manual for  
> it. I'd appreciate it if someone who has it can send me a copy of it  
> (is it a one page instruction sheet?). or maybe just explain to me  
> via email how to use the tuner.

> thanks in advance.

> 73s de jerry N3RKD

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Date: 12 Jun 94 04:18:45 GMT  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!noc.near.net!ipswitch!ddl@network.ucsd.edu  
Subject: seek old CDR rotor (or replacement)  
To: ham-ant@ucsd.edu

I'm looking for an old rotor (model HAM-M) made by Cornell-Dubilier Electronics (rotor division) once of Fuquay Springs, North Carolina. The original was from ~1968 and the company has moved or ceased to exist. I'd appreciate any information about where they are now (if they are) or about a mechanically compatible replacement. Electrical compatibility is not particularly important. (The reason mechanical compatibility is important is that the rotor was mounted using their custom bottom plated rather than a pole. The plate is well attached to the tower, and the whole thing is well weathered. Using a different style of mounting looks like major work. :)

Thanks,  
Dan Lanciani  
ddl@harvard.\*

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Date: 12 Jun 1994 21:59:31 -0000  
From: news.delphi.com!news.delphi.com!not-for-mail@uunet.uu.net  
Subject: Wind Loading  
To: ham-ant@ucsd.edu

I am going to try to build the triband quad in the arrl antenna book. What I need is help figuring the windloading. Does anyone know where I can find a program that will help me find the loading of the antenna both for the total load and to calculate the load on the beam(The one that holds the spreaders). Thanks Peter

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End of Ham-Ant Digest V94 #182  
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